

## ABSTRACT

5 It is an object of the present invention to establish a method of establishing a cell with a remarkably high hERG channel expression level for use in predicting adverse effects based on hERG channel inhibition in research and development of drugs, and to thereby establish a highly sensitive and high throughput evaluation method.

10 By inserting a hERG gene into a retrovirus vector plasmid or lentivirus vector plasmid to thereby prepare a virus vector, concentrating the vector by ultracentrifugation if necessary, transferring the hERG gene into cells and expressing hERG channels therein, it has become possible to secure an expression level effective in measurementsmeasurement using a fully automated high throughput patch clamp system or dyes.—